

**Supplemental  
DETAILED ACTION**

1. **Claims 15-34 and 36-39 are allowed. These claims have been renumbered as claims 1-24.**
2. **Claim 35 was cancelled in the 312 Amendment received on April 13, 2009.**
3. Claims 1-14 have been cancelled in the amendment received on September 4, 2007.

***Drawings***

4. The drawings filed on January 15, 2005 are accepted by the Examiner.

**REASONS FOR ALLOWANCE**

5. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record, Heuer et al. (Patent No. **7233953**), teaches using of two different schema branch codes, of which one is far more frequently used and thus effects a compression, wherein the schema branch code and the position code are combined and the bit length for the schema branch code is transmitted with them (column 2, lines 41-45). FIG. 3b shows all the schema branch codes SBC-B1 . . . SBC-B5 for any particular path are arranged one after another and in total have a length L,

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which is transmitted at the very beginning as the first item. The position codes #pos 1 . . . #pos 5 are separated from the SBCs and are arranged one after another. The bit pattern for absolute addressing with a bit length of L can be determined from the schema definition, so that it is possible to filter the bitstream by comparing it against a bit pattern (column 4, lines 31-41).

Next, the prior art of record, Kikuchi et al. (Patent No. **7051247**), teaches providing a coding part for coding an input multiplexed code string to an error correcting-/detecting code comprising an information bit and a check bit, and code string assembling part for inserting a synchronization code into any one of a plurality of periodically predetermined synchronization code inserting positions in a code string, for arranging the information bit at an optional position in the code string, and for arranging the check bit at a position other than the synchronization code inserting positions in the code string to assemble an output code string (Abstract, lines 5-15). Synchronization codes PSC are inserted into only synchronization code inserting positions indicated by arrows, which are arranged at regular intervals (every sync\_period bits). The length of the sync\_period is set to be greater than the length of the synchronization code PSC and the maximum length of the check bit CHK. The check bit CHK is shifted so as to be arranged immediately before the synchronization code inserting position (column 15, lines 13-20).

However, prior art of record, Heuer nor Kikuchi, do not render obvious to one ordinarily skilled in the art at the time of applicant's invention nor anticipate the combination of claimed elements including "selecting the position codes such that, if the

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lengths of the position codes are unlimited, any desired number of new position codes may be allocated as positions for new data elements that are to be inserted between positions of two data elements in order to code positions of the new data elements within the data structure without changing the associated position codes; and transmitting at least said new position codes” as recited in independent claim 15 and similarly recited in independent claims 25 and 35-39.

The remaining claims are dependent claims, thus these claims are patently distinct over the art of record for at least the above reasons.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

***Name of Contact***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl Lewis whose telephone number is (571) 272-4113. The examiner can normally be reached on 6:30-3:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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(571) 273-4113 (Use this FAX #, only after approval by Examiner, for “INFORMAL” or “DRAFT” communication. Examiners may request that a formal paper/amendment be faxed directly to them on occasions.).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/ Technology Center (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Cheryl Lewis/  
Primary Examiner, Art Unit 2167  
May 6, 2009